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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/441,102	11/16/1999	DAVID A. SCHWARTZ	062891.0285	3856

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EXAMINER

WAXMAN, ANDREW

ART UNIT	PAPER NUMBER
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2667

DATE MAILED: 10/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/441,102

Applicant(s)

SCHWARTZ ET AL.

Examiner

Andrew M Waxman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1, 5, and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Wynn (US Patent No. 6,275,499).

Regarding claims 1 and 12, Wynn discloses a plurality of cards in a backplane (Col 5, lines 30-40), where the cards each have unique network addresses, and communicate packets to the cards (Col 9, lines 5-10), and where the frames are shown to contain address information (Figures 8 and 9), where more than one packet is transmitted between network devices on the backplane (Figure 22) and the association of ports on the backplane cards (Figure 19).

Regarding claim 5, Wynn discloses a plurality of buses on the backplane system (Col 1, lines 48-54), and an OC-3 type network interface capability (Col 2, lines 3-5) where OC-3 is a well known dedicated bandwidth at 155.52 Mbps (Col 1, lines 22-23).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2-4, 13-16, 23-27, 33-36, 43-46, 53, 54-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wynn (US Patent No. 6,275,499), in view of Bare (US Patent No. 6,216,167).

Regarding claims 16, 26, 36, 46, and 56, Wynn discloses a plurality of buses on the backplane system (Col 1, lines 48-54), and an OC-3 type network interface capability (Col 2, lines 3-5) where OC-3 is a well-known dedicated bandwidth at 155.52 Mbps (Col 1, lines 22-23).

Regarding claims 24, 34, 44, and 54, examiner takes official notice that it is a well known feature of a network card to have a standardized network address associated with its identity, as a MAC address is a standardized network address identifier for any Ethernet network card, a commonly known and abundant type of network card.

Regarding claims 3, 14, 23, 33, 43, and 53 Wynn discloses a backplane used for networking with all of the above embodiments.

Wynn does not expressly disclose a plurality of packets being transmitted to the backplane cards by means of network devices external to the network.

Bare discloses network switches communicating throughout a network external to one another (Figure 13) and in conjunction with a backplane device (Col 33, lines 25-30) and a plurality of packets sent outside the central domain network (Col 6, lines 60-64).

Therefore, at the time the invention was made it would have been obvious to one of ordinary skill in the art to have included the use of a backplane with a series of network switches.

One of ordinary skill in the art would have been motivated to do this in order to provide more network connectivity to devices that have various physical attributes and not to exclude devices external to the central networking devices.

Regarding claims 2, 13, 25, 35, 45, and 55 Wynn discloses a backplane used for networking with all of the above embodiments.

Wynn does not expressly disclose the network devices having a MAC address and the Ethernet communicating protocol.

Bare discloses Ethernet and MAC addresses used throughout the network where the packets have destination addresses to include MAC addresses using the Ethernet protocol (Col 14, lines 30-36).

Therefore, at the time the invention was made it would have been obvious to one of ordinary skill in the art to have included the use of an Ethernet standard and MAC addresses, into the invention as disclosed by Wynn.

One of ordinary skill in the art would have been motivated to do this in order to conform to one of the most common standards in LAN and for the devices of the applicant's invention to more readily communicate with the Ethernet devices external to its existing structure.

Regarding Claims: 4, 15, 27, and 57, Wynn discloses a backplane used for networking with all of the above embodiments.

Wynn does not expressly disclose a network switch being coupled to the backplane switch.

Bare discloses network switches communicating throughout a network (Figure 13) and in conjunction with a backplane device (Col 33, lines 25-30).

Therefore at the time the invention was made it would have been obvious to one of ordinary skill in the art to have included the use of a backplane with network switch.

One of ordinary skill in the art would have been motivated to do this in order to provide more network connectivity to devices that have various physical attributes.

Claim Rejections - 35 USC § 103

3. Claims 6, 7, 8, 10, 17, 18, 19, 21, 28, 29, 31, 37, 38, 39, 41, 47, 48, 49, 51, and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wynn, in view of Bare and further in view of Peirce (US Patent No. 6,157,649).

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Regarding claims 6, 7, 10, 17, 18, 21, 28, 31, 37, 38, 41, 47, 48, and 51, Wynn discloses a backplane used for networking with all of the above embodiments

Wynn does not disclose a gateway card coupled to a telephone network in conjunction with an IP address.

Peirce discloses a backplane network device (Col 5, lines 9-10) with a gateway card that answers calls (Col 2, lines 30-31), where the network is a telephone network (Col 1, lines 18-19), where the data transfer between units includes the IP protocol address association (Figure 4), with a plurality of packets being sent (Figure 3).

Therefore at the time the invention was made it would have been obvious to one of ordinary skill in the art to have included the use of IP addresses and telephone network connectivity, into the invention as disclosed by Wynn.

One of ordinary skill in the art would have been motivated to do this as part of a large integration effort for networking improvement projects.

Regarding Claims 8, 19, 29, 39, 49, and 58, Wynn discloses a backplane used for networking where there exists a priority scheme for prioritizing data by bits (Col 18, lines 44-50).

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Wynn does not expressly disclose a gateway card coupled to a telephone network transferring voice data in connection with the backplane device.

Peirce discloses a backplane network device (Col 5, lines 9-10) with a gateway card that answers calls (Col 2, lines 30-31), where the network is a telephone network (Col 1, lines 18-19) and telephone networks carry voice.

Therefore at the time the invention was made it would have been obvious to one of ordinary skill in the art to have included the use of a gateway card to transfer network information that includes the data associated with voice, in the form of prioritized data packets, into the invention as disclosed by Wynn.

One of ordinary skill in the art would have motivated to do this to facilitate the prioritizing of time sensitive data like voice for efficient human perception requirements.

Claim Rejections - 35 USC § 103

4. Claims 9 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wynn in view of Lemaire (US Patent No. 6,205,149).

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5. Claims 30, 40, and 50, are rejected under 35 U.S.C. 103(a) as being unpatentable over Wynn (US Patent No. 6275499), in view of Bare (US Patent No. 6216167) and further in view of Lemaire (US Patent No. 6205149).

Regarding claims 9, 20, 30, 40, and 50, Wynn discloses a network backplane device where network data is transferred to and from cards on the backplane.

Wynn does not expressly disclose a priority indicator in the form of bits used to indicate a QoS level of association for an IEEE 802.1q standard used in conjunction with the current invention.

Lemaire discloses a priority bit used in a networking environment for a QoS indicator (Col 1, lines 35-39), where the system is capable of processing an 802.1 q type packet for selection (Col 6, table/lines 23-24), where the QoS is implemented within the packet data transfer algorithm (Col 6, lines 28-31).

Therefore at the time the invention was made it would have been obvious to one of ordinary skill in the art to have included the use of a QoS standard with 802.1(q) standard into a backplane network design.

One of ordinary skill in the art would have been motivated to do this in order to facilitate a broader acceptance of standardization.

Claim Rejections - 35 USC § 103

6. Claims 11 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wynn in view of Francis (US Patent No. 6,426,952).

7. Claims 32, 42, 52 and 59, are rejected under 35 U.S.C. 103(a) as being unpatentable over Wynn in view of Bare and further in view of Francis.

Regarding claims 11, 22, 32, 42, 52, and 59, Wynn discloses a network backplane device.

Wynn does not disclose a hot-swappable configuration for the backplane or a configuration where a card from the backplane could be removed while the system is powered on or operating.

Francis discloses a backplane with a method for hot-swapping cards while the system is operating (Col 27, lines 34-36).

Therefore at the time the invention was made it would have been obvious to one of ordinary skill in the art to have included the feature of removing cards from a backplane device while operation is active, into the invention as disclosed by Wynn.

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One of ordinary skill in the art would have been motivated to do this in order to provide a fast and easy method of maintenance or repair.

Response to Arguments

Applicant's arguments filed August 1, 2003 have been fully considered but they are not persuasive.

Claims 1, 6 – 8, 10, 12, 17 – 19, and 21:

Regarding claims **1 and 12**, the applicant states: "Wynn does not disclose, teach or suggest "a plurality of backplane cards coupled to the backplane, each backplane card assigned a standard-based network address" The examiner disagrees with this rebuttal that Wynn does not teach a network address assigned to a backplane card. The cards 101-105 mentioned in the Wynn rejection constitute the cards that are attached to the backplane and the the portion of the frames mentioned by "a header whose destination addresses determine the card or cards that receive iPL frames subframes " (Col 9, lines 5-10), is reason enough to show the inherent aspect of the cards to have a network address suitable to accept frames destined for them and guided by destination addresses, both claims stand rejected under the prior rejection.

Furthermore, regarding claims 1 and 12, Applicant states that Wynn does not specify that the destination address is a "standard-based network address," assigned by a standard-based network protocol, which, as defined by Applicant is "a set of rules that computers or other processing devices use to communicate over a local-area network (LAN), wide-area network

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(WAN), the Internet, or **any other data network environment.**” Applicant further contends that for this reason claims 1 and 12 are patentable over the prior art.

However, the Examiner disagrees with Applicants arguments. The Examiner contends that Wynn does indeed disclose specify that the destination address is a “standard-based network address,” as defined by Applicant. Wynn discloses a protocol for transmitting frames and sub frames containing data between back-plane cards wherein the frames and sub-frames include a header, which constitutes a **data network environment.** For this reason, Wynn does indeed inherently teach the use of standard-based network addresses assigned using a standard-based network protocol, as defined by Applicant as “a set of rules that computers or other processing devices use to communicate over **any other data network environment.**”

Claim 5, 16, 26, 36, 46, and 56:

Regarding claims **5, 16, 26, 36, 46, and 56**, Applicant contends that the prior art does not teach or fairly suggest “providing a dedicated bandwidth between a backplane card and a backplane switch.”

However, the Examiner contends that the prior art of reference does indeed teach providing a dedicated bandwidth between backplane card and a switch. See col. 1 line 51 – col. 2 line 5.

Claims 23, 27 - 29, 31, 33, 37 – 39, 41, 43, 47 - 49, 51, 53, 57, and 58:

Regarding claims **23, 27 - 29, 31, 33, 37 – 39, 41, 43, 47 - 49, 51, 53, 57, and 58**, Applicant contends that the prior art of record does not teach or fairly suggest using the protocols

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or address to communicate internally within a computing or communicating device. Applicant further contends that the prior art of record does not teach or fairly suggest a “backplane switch ...operable to receive...to the backplane card using the backplane,” or a switch that can communicate a data packet to either a backplane card or an external network device.

However, the Examiner contends that it is irrelevant whether the reference teaches the use of the protocols and addresses internally or externally because the functionality of the uses (internal or external) is the same. Furthermore, in view of the claim language, there is no suggestion that the use of the addresses and protocols internally would have a different functionality than those used externally.

The Examiner contends that Wynn does indeed inherently disclose the limitation (“backplane switch ...operable to receive...to the backplane card using the backplane.”) as recited above. Wynn discloses a plurality of cards in a backplane (Col 5, lines 30-40), where the cards each have unique network addresses, and communicate packets to the cards (Col 9, lines 5-10), it is inherent to Wynn that because of the existence of multiple cards, a second packet would be sent to a second card in the manner that the first packet was sent.

The Examiner further contends that Wynn does indeed disclose a backplane switch communicating to an internal backplane card, and only relies on Bare to provide the functionality of communicating with an external network device, which is provided in the rejection above.

Claims 24, 34, 44, and 54:

Regarding claims **Claims 24, 34, 44, and 54**, Applicant contends that it was not known to use “standard-based network addresses” for internal communications.

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However, the Examiner contends that, as shown above, the protocol used within the switch, as disclosed by Wynn, is indeed a “standard-based network protocol,” and therefore the addresses assigned to the cards etc., are “standard-based network addresses.”

Claims 2, 13, 25, 35, 45, and 55:

Regarding claims **2, 13, 25, 35, 45, and 55**, Applicant contends that Bare does not teach or fairly suggest the use of Ethernet (protocol) or MAC (addresses) to communicate data internally within a computing or communicating devices.

However, the Examiner contends that it is irrelevant whether the reference teaches the use of the protocols and addresses internally or externally because the functionality of the uses (internal or external) is the same. Furthermore, in view of the claim language, there is no suggestion that the use of the addresses and protocols internally would have a different functionality than those used externally.

Claims 3 and 14:

Regarding claims **3 and 14**, the Examiner contends that these limitations are address along with claims 33, 43, and 53, and arguments, with regard to claims 3 and 14, are rebutted for those reasons stated above.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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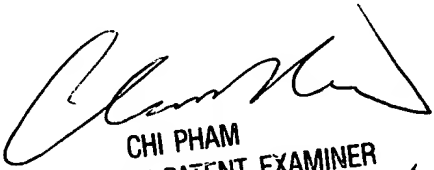
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew M Waxman whose telephone number is (703) 305-8086. The examiner can normally be reached on 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (703) 305-4378. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Andrew M. Waxman


CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600 10/24/03